SYMPOSIUM ON CHARACTERIZATION AND CHEMISTRY OF OIL SHALES
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CHARACTERIZATION OF THE OIL SHALE OF THE NEW ALBANY SHALE IN INDIANA

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ABSTRACT

In the 1920's chemical and mineralogic characterization of the New Albany Shale (Mississippian-Devonian) in Indiana showed the dark shale to be rich in organic material and have commercial possibilities. Projects in the 1960's resulted in disparaging descriptions of exiguous fossil record, monotonous mineralogy, and intractable chemistry. Since 1978 expanded efforts have yielded much new information but new problems as well.

Although organic carbon and total sulfur show positive correlation, two nearly exclusive populations exist. Material high in organic carbon is more depleted in C^{13} than material with less organic carbon. A bed usually at the top of the unit hosts anomalous accumulations of heavy metals and contains concentrations in similar ratios to those of sea water except for Mo and Pb and shows very negative δS^{34}. Heat content as Btu/lb, organic carbon (total less inorganic), and Fischer assay oil-yields generally correlate, but one is not an accurate predictor of the others.